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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,866	02/14/2002	Pan Min	66291-332	6775

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EXAMINER

NGUYEN, TUYEN T

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/073,866

Applicant(s)

MIN ET AL.

Examiner

TUYEN T NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 68-114 is/are pending in the application.
- 4a) Of the above claim(s) 70,74,75 and 77-114 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 68,69,71-73 and 76 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of species 1, claims 68-69, 71-76 and 111-114 in Paper No. 10 is acknowledged. The traversal is on the ground(s) that claims 68-69, 71-76 and 111-114 reads on the elected species 1 [figure 5] and a reasonable number of alternative embodiments should be examined together. This is not found persuasive because claims 74-75 and 111-114 read on figures 6A-6B and the various embodiments necessitate additional considerations and/or search. Claims 74-75 and 111-114 are withdrawn and claims 68-69, 71-73 and 76 will be examined here below.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 69, 71-73 and 76, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 69, there is no antecedent basis for "said transition zone."

Regarding claim 71, applicant should clarify the *zone of transition* structure and arrangement.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 68-69, 71-73 and 76, as best understood in view of the rejection under 35 U.S.C. 112 second paragraph, are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. [JP 3-240211] in view of Elton et al. [US 5,067,046].

Saito et al. discloses an induction device [figure 1] formed with a core structure [12] having a region of reduced permeability in a selected portion thereof comprising :

- a distributed air gap material [15, 16] disposed in the selected portion of the core; and
- a winding [13, 14] wound on the core.

wherein the core has opposed free ends forming an interface with the gap material, both the gap material and the core structure having a magnetic permeability values with the permeability value of the gap material being less than the magnetic permeability value of the opposed free end of the core structure.

Saito et al. discloses the instant claimed invention except the specific winding structure.

Elton et al. discloses conductor structure [figure 7] including:

- a current carrying conductor [102]
- an inner layer having semiconducting properties [104] surrounding an being in electrical contact with the current carrying conductor;
- a solid insulating layer [106] surrounding an contacting the inner layer; and

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- an outer layer [110] having semiconducting properties surrounding and contacting the solid insulating layer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the conductor structure of Elton et al. in the winding of Saito et al. for the purpose of controlling the conductor potential.

Regarding claim 76, the specific material for the core structure would have been an obvious design consideration based on the specific voltage.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T NGUYEN whose telephone number is 703-308-0821.

The examiner can normally be reached on M-F 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 703-308-7619. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TTN TTN

*Tuyen* *Nguyen*